

The undersigned would first like to thank the Examiner for the telephone interview conducted on November 12, 2002, during which the pending claims and the George and Agarwal patents were discussed.

The George patent is directed to a cleaning agent and method in which a metal surface having metal-containing contaminants is exposed to HMDS to form volatile metal-ligand complexes on the surface. These metal-ligand complexes are then sublimed from the surface. George does not disclose or suggest exposing a conductive layer to a material selected from the group consisting of phosphine, methylsilane, and hexamethyldisilane. Moreover, George is directed to removing unwanted metal-containing contaminants, and is not directed to passivating a first conductive layer to inhibit the ability of the layer to associate with oxygen and thereafter forming a second conductive layer on the first conductive layer. Agarwal similarly fails to disclose or suggest exposing a conductive layer to a material selected from the group consisting of phosphine, methylsilane, and hexamethyldisilane.

Amended claim 43 recites a method of passivating a multilayer conductive structure. The method includes layering a first conductive material and introducing the first conductive material to a material selected from the group consisting of diborane, phosphine, methylsilane, and hexamethyldisilane. Electromagnetic energy is applied to the material introduced to the first conductive material, and a second conductive material layered over the first conductive material. Neither George nor Agarwal discloses nor suggests introducing the first conductive material to a material selected from the group consisting of diborane, phosphine, methylsilane, and hexamethyldisilane. The combination of elements recited in amended claim 43 is therefore allowable.

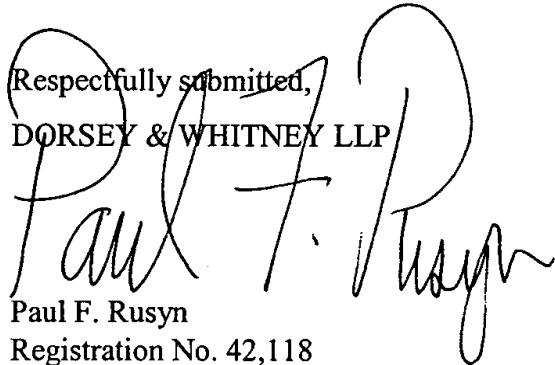
Amended claim 76 recited a method of passivating a multilayer conductive structure. The method includes layering a first conductive material and introducing the first conductive material to a material selected from the group consisting of phosphine, methylsilane, and hexamethyldisilane. Electromagnetic energy is applied to the material introduced to the first conductive material, and a second conductive material is layered over the first conductive material. Once again, Neither George nor Agarwal discloses nor suggests introducing the first conductive material to a material selected from the group consisting of phosphine, methylsilane, and hexamethyldisilane. Accordingly, the combination of elements recited in amended claim 76 is allowable.

Amended claim 78 recites a method of passivating a multilayer conductive structure. The method includes layering a first conductive material and introducing the first conductive material to a material selected from the group consisting of phosphine, methylsilane, and hexamethyldisilane. A second conductive material is layered over the first conductive material. Neither George nor Agarwal discloses nor suggests introducing the first conductive material to a material selected from the group consisting of phosphine, methylsilane, and hexamethyldisilane. Thus, the combination of elements recited in amended claim 78 is allowable.

The claims dependent on the independent claims are allowable for the same reasons as the independent claims, and because of the additional limitations added by the dependent claims.

All pending claims are in condition for allowance, and favorable consideration and a Notice of Allowance are respectfully requested. The Examiner is requested to contact the undersigned at the number listed below for a telephone interview if, upon consideration of this amendment, the Examiner determines any pending claims are not in condition for allowance. The undersigned also requests the Examiner to direct all future correspondence to the address set forth below in the event the Examiner shows a different correspondence address for the attorney of record.

Attached hereto is a marked-up version of the changes made to the claims by the current amendment. The attached page is captioned "Version with Markings to Show Changes Made".

Respectfully submitted,  
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PFR:asw

Enclosures:

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

In the Claims:

Claims 79 and 80 have been cancelled.

Claims 43, 76, and 78 have been amended as follows:

43. (Thrice Amended) A method of passivating a multilayer conductive structure, comprising:

layering a first conductive material;

introducing said first conductive material to a material selected from the group consisting of diborane, phosphine, methylsilane, and hexamethyldisilane[a carbon-silicon compound, HCL, and boron trichloride];

applying electromagnetic energy to the material introduced to the first conductive material; and

layering a second conductive material over said first conductive material.

76. (Thrice Amended) A method of passivating a multilayer conductive structure, comprising:

layering a first conductive material;

introducing said first conductive material to a material selected from the group consisting of phosphine, methylsilane, and hexamethyldisilane[and a carbon-silicon compound];

applying electromagnetic energy to the material introduced to the first conductive material; and

layering a second conductive material over said first conductive material.

78. (Twice Amended) A method of passivating a multilayer conductive structure, comprising:

layering a first conductive material;

introducing the first conductive material to a material selected from the group consisting of phosphine, methylsilane, and hexamethyldisilane[and a carbon-silicon compound]; and.

layering a second conductive material over the first conductive material.

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